

# **PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY**

**Lafayette Home Hospital  
2400 South Street  
Lafayette, Indiana 47904-3027**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T 157-11992-00052	
Issued by: Original Signed by Janet McCabe Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: October 15, 2001  Expiration Date: October 15, 2006

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary general medical hospital consisting of three (3) boilers and a medical waste incinerator.

Responsible Official:	Thomas R. Peck
Source Address:	2400 South Street, Lafayette, Indiana 47904-3027
Mailing Address:	2400 South Street, Lafayette, Indiana 47904-3027
General Source Phone Number:	(765) 449-3126
SIC Code:	8062
County Location:	Tippecanoe
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, installed in 1990, firing natural gas as supplementary fuel, exhausting to Stack I-1, with a maximum charge rate less than 200 pounds of medical waste per hour, rated at 2.57 million British thermal units per hour. This facility is undergoing retrofitting to comply with 326 IAC 11-6 and 40 CFR 60, Subpart Ce, and will be equipped with a wet scrubber as control.
- (b) Three (3) natural gas-fired boilers, firing No.2 distillate oil as backup, identified as B-1, B-2 and B-3, all installed in 1971, all exhausting to Stack B-1, rated at 20.9 million British thermal units per hour, each.

### A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3]
- (b) Emergency generators as follows: diesel -fired not exceeding 1,600 horsepower: Three (3) diesel -fired emergency generators, identified as G-1, G-2 and G-3, all exhausting to Stack G-1, rated at 1,100 horsepower, each.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

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This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

## SECTION B

## GENERAL CONDITIONS

### B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

### B.2 Permit Term [326 IAC 2-7-5(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

### B.3 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

### B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

### B.7 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)] [326 IAC 2-7-6(6)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality. [326 IAC 2-7-5(6)(E)]

(c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may

assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

**B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]**

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- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provision of this permit is grounds for:
  - (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; or
  - (3) Denial of a permit renewal application.
- (b) Noncompliance with any provisions of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act.
- (c) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (d) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

**B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]**

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- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

**B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]**

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)  
77 West Jackson Boulevard



Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]  
[326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement

a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

**B.12 Emergency Provisions [326 IAC 2-7-16]**

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or

Telephone Number: 317-233-5674 (ask for Compliance Section)

Facsimile Number: 317-233-5967

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

**B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]**

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC

13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. All previously issued operating permits are superseded by this permit.
- (c) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (d) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (e) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
  - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
  - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
  - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
  - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (f) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (g) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (h) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(7)]

**B.14 Multiple Exceedances [326 IAC 2-7-5(1)(E)]**

Any exceedance of a permit limitation or condition contained in this permit, which occurs contemporaneously with an exceedance of an associated surrogate or operating parameter established to

detect or assure compliance with that limit or condition, both arising out of the same act or occurrence, shall constitute a single potential violation of this permit.

**B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]**

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.

The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
- (2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

**B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]**

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:

- (1) That this permit contains a material mistake.
- (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
- (3) That this permit must be revised or revoked to assure compliance with an applic-

able requirement. [326 IAC 2-7-9(a)(3)]

- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

**B.17 Permit Renewal [326 IAC 2-7-4]**

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]
  - (1) A timely renewal application is one that is:
    - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
    - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
  - (2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3]  
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.
- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]

If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

**B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]**

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(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

**B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12(b)(2)]**

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(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1)(D)(i) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

**B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]**

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(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality

100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance  
copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20 (b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b), (c)(1), and (e)(2).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report, or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

**B.21 Source Modification Requirement [326 IAC 2-7-10.5]**

A modification, construction, or reconstruction is governed by 326 IAC 2 and 326 IAC 2-7-10.5.

**B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2]**

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to



assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy any records that must be kept under the conditions of this permit;
- (c) Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source
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### Emission Limitations and Standards [326 IAC 2-7-5(1)]

**C.1 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]**

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

**C.2 Opacity [326 IAC 5-1]**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]**

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

**C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]**

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

**C.5 Fugitive Dust Emissions [326 IAC 6-4]**

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

**C.6 Operation of Equipment [326 IAC 2-7-6(6)]**

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

**C.7 Stack Height [326 IAC 1-7]**

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

**C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]**

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- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

## **Testing Requirements [326 IAC 2-7-6(1)]**

### **C.9 Performance Testing [326 IAC 3-6]**

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

## **Compliance Requirements [326 IAC 2-1.1-11]**

### **C.10 Compliance Requirements [326 IAC 2-1.1-11]**

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

## **Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**

### **C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

**C.12 Maintenance of Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]**

- (a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less often than once an hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

**C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

**C.14 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of a temperature, flow rate, or pH level, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

**Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]**

**C.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]**

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68,

including the registration and submission of a Risk Management Plan (RMP).;

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.16 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:
- (1) This condition;
  - (2) The Compliance Determination Requirements in Section D of this permit;
  - (3) The Compliance Monitoring Requirements in Section D of this permit;
  - (4) The Record Keeping and Reporting Requirements in Section C (General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
  - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
    - (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
    - (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps may constitute a violation of the permit.
- (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.

- (3) An automatic measurement was taken when the process was not operating.
- (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
- (f) At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter. Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

**C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ, reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6] [326 IAC 2-7-19 (e)]**

- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements and be used for the purpose of a Part 70 fee assessment:
  - (1) Indicate estimated actual emissions of criteria pollutants from the source;

- (2) Indicate estimated actual emissions of other regulated pollutants (as defined by 326 IAC 2-7-1) from the source, for purposes of Part 70 fee assessment.
- (b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:  
  
Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015  
  
The emission statement does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).
- (c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.



- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

### **Stratospheric Ozone Protection**

#### **C.21 Compliance with 40 CFR 82 and 326 IAC 22-1**

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

One (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, installed in 1990, firing natural gas as supplementary fuel, exhausting to Stack I-1, with a maximum charge rate less than 200 pounds of medical waste per hour, rated at 2.57 million British thermal units per hour. This facility is undergoing retrofitting to comply with 326 IAC 11-6 and 40 CFR 60, Subpart Ce, and will be equipped with a wet scrubber as control.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.1.1 Special Condition

The one (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, shall have a maximum charge rate less than 200 pounds of medical waste per hour.

#### D.1.2 Burning Regulations for Incinerators (PM) [326 IAC 4-2]

Pursuant to 326 IAC 4-2-2, the one (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, with a capacity of less than 200 pounds of medical waste per hour shall:

- (a) Consist of primary and secondary chambers or the equivalent;
- (b) be equipped with a primary burner unless burning wood products;
- (c) comply with 326 IAC 5-1 and 326 IAC 2;
- (d) be maintained properly as specified by the manufacturer and approved by the commissioner;
- (e) be operated according to the manufacturer's recommendations and only burn waste approved by the commissioner;
- (f) comply with other state and/or local rules or ordinances regarding installation and operation of incinerators;
- (g) be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented;
- (h) not emit particulate matter in excess of five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air; and
- (i) not create a nuisance or a fire hazard.

The operation of the incinerator shall be terminated immediately upon noncompliance with any of the above mentioned requirements.

#### D.1.3 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60

Subpart Ce.

D.1.4 Hospital/Medical/Infectious Waste Incinerators [326 IAC 11-6] [40 CFR 60, Subpart Ce]

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- (a) The one (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, is subject to 326 IAC 11-6 and 40 CFR 60, Subpart Ce with a compliance date of March 31, 2002.
- (b) Pursuant to 326 IAC 11-6-4 and 40 CFR 60, Subpart Ce, the one (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, shall comply with the following emissions limitations:
  - (1) Particulate Matter emissions shall not exceed 0.05 grains per dry standard cubic foot for small Hospital/Medical/Infectious Waste Incinerators.
  - (2) Carbon Monoxide emissions shall not exceed 40 parts per million by volume;
  - (3) Dioxins/furans shall not exceed 55 grains per billion dry standard cubic feet total dioxins/furans or 1.0 grains per billion dry standard cubic feet toxic equivalent quantity (TEQ);
  - (4) Hydrogen chloride emissions shall not exceed 100 parts per million by volume or a 93% reduction;
  - (5) Sulfur dioxide emissions shall not exceed 55 parts per million by volume;
  - (6) Nitrogen oxide emissions shall not exceed 250 parts per million by volume;
  - (7) Lead emissions shall not exceed 0.52 grains per thousand dry standard cubic feet or a 70% reduction;
  - (8) Cadmium emissions shall not exceed 0.07 grains per thousand dry standard cubic feet or a 65% reduction;
  - (9) Mercury emissions shall not exceed 0.24 grains per thousand dry standard cubic feet or a 85% reduction; and
  - (10) Discharge into the atmosphere of any gases shall not exceed ten percent (10%) opacity (6-minute block average).

D.1.5 Operator Training and Qualification Requirements [40 CFR 60.34e] [40 CFR 60.53c(h)] [326 IAC 11-6-5]

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Pursuant to 326 IAC 11-6-5, the one (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, shall not operate at any time unless a fully trained and qualified Hospital/Medical/Infectious Waste Incinerator operator is accessible, either at the facility or available within one (1) hour. The following documentation shall be maintained at the facility and an initial review of the information with each Hospital/Medical/Infectious Waste Incinerator operator shall be conducted within six (6) months after the effective date 40 CFR Part 60, Subpart Ec (March 16, 1998), or prior to assumption of responsibilities affecting Hospital/Medical/Infectious Waste Incinerator operation, whichever date is later, and annually, thereafter:

- (a) Summary of the applicable standards;
- (b) Description of basic combustion theory applicable to a Hospital/Medical/Infectious Waste Incinerator;
- (c) Procedures for receiving, handling, and charging waste;

- (d) Hospital/Medical/Infectious Waste Incinerator startup, shutdown and malfunction procedures;
- (e) Procedures for maintaining proper combustion air supply levels;
- (f) Procedures for operating the Hospital/Medical/Infectious Waste Incinerator and associated air pollution control systems;
- (g) Procedures for responding to periodic malfunction or conditions that may lead to malfunction;
- (h) Procedures for monitoring Hospital/Medical/Infectious Waste Incinerator emissions;
- (i) Reporting and record keeping; and
- (j) Procedures for handling ash.

D.1.6 Waste Management Plan [326 IAC 11-6-6][40 CFR 60.35e]

Pursuant to 326 IAC 11-6-6, the Permittee shall prepare and submit a waste management plan as specified in 40 CFR 60.55c no later than sixty (60) days following the initial performance test.

- (a) The Waste Management Plan must identify both the feasibility and the approach to separate certain components of solid waste from the health care waste stream in order to reduce the amount of toxic emissions from incinerated waste.
- (b) The Waste Management Plan may include, but is not limited to:
  - (1) materials such as paper, cardboard, plastics, glass, batteries, or metal recycling; or
  - (2) purchasing recycled or recycled products.
- (c) The Waste Management Plan may include different goals or approaches for different areas or departments of the facility and need not include new waste management goals for every waste stream.
- (d) The Waste Management Plan should identify, where possible:
  - (1) reasonably available additional waste management measures;
  - (2) taking into account the effectiveness of waste management measures already in place;
  - (3) the cost of additional measures;
  - (4) the emission reductions expected to be achieved; and
  - (5) any other environmental or energy impacts they might have.
- (e) The American Hospital Association publication entitled "An Ounce of Prevention: Waste Reduction Strategies" shall be considered in the development of the Waste Management Plan.

(f) Additional requirements:

- (1) The Waste Management Plan shall address proper waste segregation.
- (2) The Waste Management Plan shall address the management of such waste stream to assure that the Permittee is in compliance with local, state, and federal waste management rules.
- (3) The Waste Management Plan shall address proper management of all mercury-containing items.
- (4) The Waste Management Plan shall identify all items that could become mercury-containing wastes.
- (5) The Permittee shall monitor its waste stream for mercury-containing waste, and shall maintain a list of common mercury-containing items. Common mercury-containing items include, but are not limited to:
  - (A) Thermometers (silver colored liquid inside)
  - (B) Thermostats (nonelectronic)
  - (C) Fluorescent and other mercury vapor lighting (high intensity discharge - HID, metal halide, high pressure sodium and neon bulbs)
  - (D) Gauges (barometers, manometers, blood pressure and vacuum gauges with silver colored liquid)
  - (E) Batteries (mercuric oxide and some alkaline batteries)
  - (F) Paint (latex manufactures before 1990, and some oil-based paints; check the label)
  - (G) Thimerosal or merbromine (in some antibacterial products)
  - (H) Elemental mercury (from labs)
  - (I) Esophageal dilators
  - (J) Laboratory fixatives
- (6) The Permittee shall include plans to eliminate all mercury-containing items from the waste stream of the incinerator.
- (7) The Waste Management Plan shall address the training of all affected staff on proper waste management practices of mercury-containing items and other solid, hazardous and medical waste items.
- (8) The Permittee shall have Waste Management Plans for all facilities owned by the Permittee that send waste to this incinerator. Each Waste Management Plan shall comply with the requirements of this condition.

**D.1.7 Carbon Monoxide [326 IAC 9-1-2]**

Pursuant to 326 IAC 9-1-2, the Permittee shall not cause or allow the discharge of carbon monoxide from the one (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, unless the waste gas stream is burned in a direct-flame afterburner or is controlled by other means approved by IDEM, OAQ.

**D.1.8 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

**Compliance Determination Requirements**

**D.1.9 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 11-6-7] [40 CFR 60, Subpart Ce]**

- (a) Pursuant to 326 IAC 11-6-7 and 40 CFR 60, Subpart Ce, an initial performance test to demonstrate compliance with Condition D.1.4 must be conducted no later than March 31, 2002. Compliance shall be determined according to 326 IAC 3-6 concerning source sampling procedures and 40 CFR 60, Subpart Ec, Section 60.56c, excluding the fugitive emissions testing requirements under Section 60.56c(b)(12) and 60.56c(c)(3).
- (b) Pursuant to 40 CFR 60.56c(c)(2), annual performance testing to demonstrate compliance with the PM, CO, and HCl emission limits established in D.1.4 shall be performed each year following the initial performance test. If all three (3) performance tests over a three (3) consecutive year period indicate compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for the subsequent two (2) years. At a minimum, a performance test for PM, CO, and HCl shall be conducted every third year (no more than thirty-six (36) months following the previous performance test). If a performance test conducted every third year indicates compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for an additional two (2) years. If any performance test indicates noncompliance with the respective emission limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a three (3) consecutive year period indicate compliance with the emission limit. The use of the bypass stack during a performance test shall invalidate the performance test.
- (c) Pursuant to 40 CFR 60.56c(c)(1), the Permittee shall determine compliance with the opacity limit established in Condition D.1.4 by conducting an annual performance test (no more than twelve (12) months following the previous performance test).
- (d) IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**D.1.10 Compliance Date [326 IAC 11-6-9] [40 CFR 60.39e]**

Pursuant to 326 IAC 11-6-9, the source shall install any necessary air pollution control equipment and be in compliance with all provisions of this rule no later than March 31, 2002, provided the following measurable and enforceable incremental steps of progress are taken:

- (a) Submit a final control plan no later than June 30, 1999;
- (b) Award contracts for emissions control systems or for process modifications, or issuance of orders for the purchase of component parts to accomplish emission control or process modifications no later than March 31, 2000;

- (c) Initiate on-site construction or installation of emission control equipment or process change no later than March 31, 2001;
- (d) Complete on-site construction or installation of emission control equipment or process change no later than September 30, 2001;
- (e) Be in final compliance no later than March 31, 2002; and
- (f) The source shall be in compliance with the operator training and qualification requirements by March 11, 2000.

**D.1.11 Hospital/Medical/Infectious Waste Incinerators [326 IAC 11-6] [40 CFR 60, Subpart Ce]**

In order to comply with 326 IAC 11-6 and 40 CFR 60, Subpart Ce, the wet scrubber shall be in operation at all times when the medical waste incinerator is in operation on and after March 31, 2002.

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

**D.1.12 Monitoring [326 IAC 11-6-7] [40 CFR 60.57c]**

- (a) Pursuant to 326 IAC 11-6-7 and 40 CFR 60.57c, the Permittee shall install, calibrate (to manufacturers specifications), maintain, and operate devices (or establish methods) for monitoring the applicable operating parameters at all times except during periods of startup or shutdown. The following operational parameters for the one (1) Hospital Medical Infectious Waste Incinerator, equipped with a wet scrubber, shall be measured continuously, and recorded at the specified time intervals:
  - (1) Maximum charge rate, recorded once per hour;
  - (2) Maximum flue gas temperature, recorded once per minute;
  - (3) Minimum secondary chamber temperature, recorded once per minute;
  - (4) Minimum pressure drop across the wet scrubber or minimum horsepower or amperage to the wet scrubber, recorded once per minute;
  - (5) Minimum scrubber liquor flow rate, recorded once per minute; and
  - (6) Minimum scrubber liquor pH, recorded once per minute.
- (b) The Permittee shall install, calibrate (to manufacturers specifications), maintain, and operate devices (or establish methods) for measuring the use of the bypass stack including date, time, and duration.
- (c) The Permittee shall obtain monitoring data at all times during Hospital/Medical/Infectious Waste Incinerator operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for 75 percent of the operating hours per day and for 90 percent of the operating days per calendar quarter that the affected facility is combusting hospital waste and/or medical/infectious waste.
- (d) The Permittee shall monitor mercury-containing items in the waste stream as required by Condition D.1.6(f)(5).

#### D.1.13 Visible Emissions Notations

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- (a) Visible emission notations of the incinerator/scrubber stack(s) exhaust shall be performed once per shift during normal daylight operations until the final compliance date of March 31, 2002, or upon complying with the monitoring requirements of 326 IAC 11-6 and 40 CFR 60 Subpart Ce specified in Condition D.1.12, whichever is earlier, when exhausting to the atmosphere. After March 31, 2002, the monitoring requirements of 326 IAC 11-6 and 40 CFR 60 Subpart Ce will make these visible emissions notations unnecessary. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

#### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

##### D.1.14 Record Keeping Requirements

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- (a) To document compliance with Conditions D.1.4 and D.1.12, the Permittee shall maintain information on site for a period of at least 5 years sufficient to establish compliance with 40 CFR 60.58c(b), based on the control equipment installed.
- (b) To document compliance with Condition D.1.13, the Permittee shall maintain records of visible emission notations of the incinerator stack exhaust once per shift until the final compliance date of March 31, 2002.

##### D.1.15 Reporting Requirements

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- (a) Pursuant to 326 IAC 11-6-8, 40 CFR 60.38e and 40 CFR 58.58c(c), the Permittee shall submit the following information no later than 60 days following the initial performance test:
  - (1) The initial performance test data;
  - (2) The values for the site-specific operating parameters, as applicable [40 CFR 60.56c (d) or (i)]; and
  - (3) The waste management plan.
- (b) Pursuant to 326 IAC 11-6-8, 40 CFR 60.38e and 40 CFR 58.58c(d), upon March 31, 2002, the Permittee must submit an annual report, including the following information:
  - (1) The values for the site-specific operating parameters, as applicable;
  - (2) The highest maximum operating parameter and the lowest operating parameter, as applicable, for the year being reported;



- (3) The highest maximum operating parameter and the lowest operating parameter as applicable, for the year preceding the year being reported;
  - (4) Identification of calendar days, times, description and durations of malfunctions; calendar days of emission rates or operating parameters not measured and the reason; and calendar days of emissions rates or operating parameters exceeding the applicable limits; for the year being reported;
  - (5) Identification of calendar days, times, description and durations of malfunctions; calendar days of emission rates or operating parameters not measured and the reason; and calendar days of emissions rates or operating parameters exceeding the applicable limits; for the preceding year being reported;
  - (6) If a performance test was conducted during the reporting period, the results of that test;
  - (7) If no exceedances or malfunctions were reported for the calendar year being reported, a statement that no exceedances occurred during the reporting period; and
  - (8) Any use of the bypass stack, the duration, reason for malfunction and corrective action taken.
- (c) The reports required in (a) and (b) of this condition shall be submitted to the address listed in Section C - General Reporting Requirements.

## SECTION D.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (a) Three (3) natural gas-fired boilers, firing No.2 distillate oil as backup, identified as B-1, B-2 and B-3, all installed in 1971, all exhausting to Stack B-1, rated at 20.9 million British thermal units per hour, each.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.2.1 Particulate Matter (PM) [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3, the PM emissions from the three (3) boilers, identified as B-1, B-2 and B-3, are limited by the following equation:

$$Pt = C \times a \times h / 76.5 \times Q^{0.75} \times N^{0.25}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 MMBtu/hr heat input. The value 0.8 shall be used for Q greater than 1,000 MMBtu/hr heat input.

h = Stack height in feet.

Pursuant to 326 IAC 6-2-3(d), Pt for all facilities used for indirect heating purposes which were existing and in operation on or before June 8, 1972 shall not exceed 0.8 pounds per million British thermal units. Therefore, the three (3) boilers, identified as B-1, B-2 and B-3, are limited to emissions of 0.8 pounds per million British thermal units.

#### D.2.2 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1]

Any change in the sulfur content of the fuels used that causes an increase in SO<sub>2</sub> emissions at any of the three (3) boilers to 25 tons per year or more shall cause the boiler(s) to become subject to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations). Any increase in the sulfur content of the No. 2 distillate fuel to more than 0.268 percent will cause the boiler to have a potential to emit of 25 tons per year and

will require prior IDEM, OAQ, approval.

### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

#### **D.2.3 Visible Emissions Notations**

- (a) Visible emission notations of the boiler stack (B1) exhaust shall be performed once per shift during normal daylight operations when any of the three (3) boilers are combusting No. 2 distillate oil and exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

### **Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### **D.2.4 Record Keeping Requirements**

- (a) To document compliance with Condition D.2.3, the Permittee shall maintain records of visible emission notations of the boiler stacks exhausts once per shift.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### **D.2.5 Reporting Requirements**

A semi-annual natural gas fired boiler certification, shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or their equivalent, within thirty (30) days after the end of the six (6) month period being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.3

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]: Insignificant Activities

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
- (b) Emergency generators as follows: diesel -fired not exceeding 1,600 horsepower: Three (3) diesel-fired emergency generators, identified as G-1, G-2 and G-3, all exhausting to Stack G-1, rated at 1,100 horsepower, each.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.3.1 Volatile Organic Compounds (VOC)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations) for cold cleaning operations constructed after January 1, 1980, the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

#### D.3.2 Volatile Organic Compounds (VOC)

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility construction of which commenced after July 1, 1990, shall ensure that the following control equipment requirements are met:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
  - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));
  - (B) The solvent is agitated; or
  - (C) The solvent is heated.
- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees

Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
  - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
  - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
    - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
    - (B) A water cover when the solvent used is insoluble in, and heavier than, water.
    - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

#### **D.3.3 Operation Limitation**

Pursuant to the definition of emergency generators, operation of the three (3) generators, identified as G-1, G-2 and G-3, shall be limited to an annual total of 500 hours, each.

### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### **D.3.4 Record Keeping Requirements**

- (a) To document compliance with Condition D.3.3, the Permittee shall maintain records of the following:
  - (1) The hours of operation of each emergency generator;
  - (2) Records of the annual fuel usage of each emergency generator.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH**

**PART 70 OPERATING PERMIT  
CERTIFICATION**

Source Name: Lafayette Home Hospital  
Source Address: 2400 South Street, Lafayette, Indiana 47904-3027  
Mailing Address: 2400 South Street, Lafayette, Indiana 47904-3027  
Part 70 Permit No.: T 157-11992-00052

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) \_\_\_\_\_
- 9 Report (specify) \_\_\_\_\_
- 9 Notification (specify) \_\_\_\_\_
- 9 Affidavit (specify) \_\_\_\_\_
- 9 Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

**COMPLIANCE BRANCH**  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: Lafayette Home Hospital  
Source Address: 2400 South Street, Lafayette, Indiana 47904-3027  
Mailing Address: 2400 South Street, Lafayette, Indiana 47904-3027  
Part 70 Permit No.: T 157-11992-00052

**This form consists of 2 pages**

**Page 1 of 2**

- 9** This is an emergency as defined in 326 IAC 2-7-1(12)
- C** The Permittee must notify the Office of Air Quality (OAQ), within four **(4)** business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
  - C** The Permittee must submit notice in writing or by facsimile within two **(2)** days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

**Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

A certification is not required for this report.



**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH**

**PART 70 OPERATING PERMIT  
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: Lafayette Home Hospital  
Source Address: 2400 South Street, Lafayette, Indiana 47904-3027  
Mailing Address: 2400 South Street, Lafayette, Indiana 47904-3027  
Part 70 Permit No.: T 157-11992-00052

9	Natural Gas Only	
9	Alternate Fuel burned	
	From: _____	To: _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH**

**PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Lafayette Home Hospital  
Source Address: 2400 South Street, Lafayette, Indiana 47904-3027  
Mailing Address: 2400 South Street, Lafayette, Indiana 47904-3027  
Part 70 Permit No.: T 157-11992-00052

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## Indiana Department of Environmental Management Office of Air Quality

### Addendum to the Technical Support Document for a Part 70 Operating Permit

**Source Name:** Lafayette Home Hospital  
**Source Location:** 2400 South Street, Lafayette, Indiana 47904-3027  
**County:** Tippecanoe  
**SIC Code:** 8062  
**Operation Permit No.:** T 157-11992-00052  
**Permit Reviewer:** Edward A. Longenberger

On May 18, 2001, the Office of Air Quality (OAQ) had a notice published in the Journal and Courier, Lafayette, Indiana, stating that Lafayette Home Hospital had applied for a Part 70 Operating Permit to operate three (3) boilers and a medical waste incinerator at a general medical hospital. The incinerator is undergoing retrofitting to comply with 326 IAC 11-6 and 40 CFR 60, Subpart Ce, and will be equipped with a wet scrubber as control. The notice also stated that OAQ proposed to issue a Part 70 Operating Permit for this operation and provided information on how the public could review the proposed Part 70 Operating Permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this Part 70 Operating Permit should be issued as proposed.

On June 18, 2001, Douglas and Gretchen Paprocki submitted comments on the proposed Part 70 permit. The comments and corresponding responses are as follows: The permit language, if changed, has deleted language as ~~strikeouts~~ and new language **bolded**.

#### **Comment 1:**

It is gratifying to read that within the draft permit application there will be a waste management plan addressing mercury elimination and segregation directed to the incinerator for disposal. However, it is noted that Lafayette Home Hospital (LHH) is requesting that the facility NOT be required to utilize a Jerome Meter to detect mercury in the waste. Furthermore, no reason is given in the letter to Mr. Longenberger from LHH.

We respectfully request that LHH be required to thoroughly monitor for detection of mercury in the waste stream from the beginning of the permitted incineration and periodically thereafter. This is a prudent requirement, and it would seem that a health facility would want to be fully assured that its program is working as it should. As members of the local general public we wish for that assurance.

#### **Response 1:**

The purpose of the Title V Operating Permit is to consolidate existing requirements with respect to emission limitations, monitoring, record keeping, and reporting. There is no authority in the Title V program for establishing new emission limits.

State Rule 326 IAC 11-6 and Federal Rule 40 CFR 60, Subpart Ce contain emission limits, initial testing requirements, operator training requirements; and a waste management plan (Condition D.1.6 of the permit) which is intended to minimize mercury emissions on a daily basis. The waste management plan will include plans to eliminate all mercury-containing items from the waste stream of the incinerator. Current state and federal law allows for limited emissions of mercury from medical waste incinerators. The proposed Part 70 Operating Permit contains the following condition which limits mercury emissions:

D.1.4 Hospital/Medical/Infectious Waste Incinerators [326 IAC 11-6] [40 CFR 60, Subpart Ce]

(b) Pursuant to 326 IAC 11-6-4 and 40 CFR 60, Subpart Ce, the one (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, shall comply with the following emissions limitations:

- (9) Mercury emissions shall not exceed 0.24 grains per thousand dry standard cubic feet or a 85% reduction;

Compliance with the mercury emission limit in Condition D.1.4(b)(9) will be determined by an initial performance test, pursuant to 40 CFR 60.56c. There are no applicable regulations that require continuous monitoring of mercury in the waste stream. The use of a Jerome Meter to detect mercury-containing waste will not be required by this permit because the hospital is burning its own waste, and this source will address and monitor mercury-containing wastes as part of the waste management plan required by 326 IAC 11-6.

No change to the proposed permit was made as a result of this comment.

**Comment 2:**

Secondly, it is noted that emissions from the incinerator will include dioxins and furans. So that these cancer-causing agents can be reduced to the bare minimum, we respectfully request that LHH implement a program that adequately reduces the use of plastics containing PVC that are incinerated.

**Response 2:**

Current state and federal law allows for limited dioxin/furan emissions from medical waste incinerators. 326 IAC 11-6 and 40 CFR 60, Subpart Ce contain emission limits, and operator training requirements which are intended to minimize dioxin/furan emissions on a daily basis. The proposed Part 70 Operating Permit contains the following condition which limits dioxins/ furans emissions:

D.1.4 Hospital/Medical/Infectious Waste Incinerators [326 IAC 11-6] [40 CFR 60, Subpart Ce]

(b) Pursuant to 326 IAC 11-6-4 and 40 CFR 60, Subpart Ce, the one (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, shall comply with the following emissions limitations:

- (3) Dioxins/furans shall not exceed 55 grains per billion dry standard cubic feet total dioxins/furans or 1.0 grains per billion dry standard cubic feet toxic equivalent quantity (TEQ);

As specified in Condition D.1.9 of the proposed permit, compliance with the dioxins/furans limit in Condition D.1.4(b)(3) will be determined by an initial performance test, pursuant to 40 CFR 60.56c.

The emission calculations in Appendix A of the Technical Support Document for the Part 70 Operating Permit are based on AP-42 emission factors, published by the USEPA, and do not necessarily represent the actual emissions from Lafayette Home Hospital. These emission factors provide conservative estimates of the emissions from this type of incinerator.

The incinerator at Lafayette Home Hospital is used only for burning medical waste. The source has informed IDEM that the sharps containers comprise the majority of the plastic burned in the incinerator, and that these containers are made of polyethylene and contain no PVC. Other miscellaneous items such as the 'surgical fields' -- the sterile sheets draped over a patient during surgery -- may or may not contain PVC.

No change to the proposed permit was made as a result of this comment.

**Comment 3:**

Thirdly, from the permit application, it appears that LHH burns treated or chemically contaminated wood. Why would these items not be disposed of in conventional ways? And why would they be incinerated when the general public has been advised for several decades now not to burn CCA-treated (copper, chromium, and arsenic) and other treated wood?

**Response 3:**

The source has confirmed (via telephone and in writing) that it does not burn any chemically treated or chemically contaminated wood. The incinerator at Lafayette Home Hospital is used only for incineration of medical waste. General wastepaper basket trash, dietary trash, and office trash is compacted and disposed of through conventional means and not incinerated.

**Comment 4:**

In regards to the above issues, it is noted that some months back the Maine Hospital Assn. signed an agreement to voluntarily eliminate the use of most mercury-containing supplies and medical equipment as well as to continuously reduce the use of plastics containing PVC, becoming the first in the nation to do so.

While the need of the hospital to destroy pathogens in its medical waste stream is clearly understandable, it is incongruous for a health facility to utilize a process whereby health-damaging by-products are dispersed into the air, particularly in an urban-residential area.

In conclusion, if adequate monitoring of mercury in the LHH waste stream is not to be required, along with measures to substantially minimize the emitting of dioxins/furans and other toxic substances into the air by LHH, then we are requesting a public hearing to explain why the environment and the public should endure the exposure and ingestion of the numerous toxic substances at the hand of a major health facility.

**Response 4:**

Although there are no applicable regulations that require continuous monitoring of mercury in the waste stream, this source will address and monitor mercury-containing wastes as part of the waste management plan required by 326 IAC 11-6. The incinerator at Lafayette Home Hospital is used only for burning red bag medical waste. Furthermore, the source has informed IDEM that the sharps containers are made of polyethylene and contain no PVC.

The IDEM inspector assigned to this source is Wanda Stanfield. Ms. Stanfield can be contacted at (317) 233-6864 if you suspect that Lafayette Home Hospital is out of compliance with any of the applicable regulations. IDEM generates a schedule that determines when the inspector will visit the source. Inspector visits are unannounced. There will be enforcement actions if Lafayette Home Hospital is found to be in violation of any conditions in this Part 70 Operating Permit.

The OAQ thanks Douglas and Gretchen Paprocki for their comments regarding Lafayette Home Hospital. This Part 70 Operating Permit contains conditions that will ensure that Lafayette Home Hospital remains in compliance with all applicable State and Federal air regulations.

Upon further review, the OAQ has decided to make the following changes to the Part 70 Operating Permit: The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

1. In order to incorporate more specific language from 40 CFR 60.56c into the permit, Condition D.1.9 has been revised as follows:

D.1.9 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 11-6-7] [40 CFR 60, Subpart Ce]

- 
- (a) Pursuant to 326 IAC 11-6-7 and 40 CFR 60, Subpart Ce, an initial performance test to demonstrate compliance with Condition D.1.4 must be conducted no later than March 31, 2002. Compliance shall be determined according to 326 IAC 3-6 concerning source sampling procedures and 40 CFR 60, Subpart Ec, Section 60.56c, excluding the fugitive emissions testing requirements under Section 60.56c(b)(12) and 60.56(c)(3).
  - (b) Pursuant to 40 CFR 60.56c(c)(2), annual performance testing to demonstrate compliance with the PM, CO, and HCl and opacity emission limits established in D.1.4 shall be performed each year following the initial performance test. **If all three (3) performance tests over a three (3) consecutive year period indicate compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for the subsequent two (2) years. At a minimum, a performance test for PM, CO, and HCl shall be conducted every third year (no more than thirty-six (36) months following the previous performance test). If a performance test conducted every third year indicates compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for an additional two (2) years. If any performance test indicates noncompliance with the respective emission limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a three (3) consecutive year period indicate compliance with the emission limit. The use of the bypass stack during a performance test shall invalidate the performance test.**
  - (c) **Pursuant to 40 CFR 60.56c(c)(1), the Permittee shall determine compliance with the opacity limit established in Condition D.1.4 by conducting an annual performance test (no more than twelve (12) months following the previous performance test).**
  - ~~(e)~~(d) IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance shall be determined by a performance test conducted in accordance with Section C - Performance Testing.
2. In accordance with 326 IAC 11-6-8, 40 CFR 60.38e and 40 CFR 58.58c(d), Condition D.1.15 is revised as follows:

D.1.15 Reporting Requirements

- 
- (a) Pursuant to 326 IAC 11-6-8, 40 CFR 60.38e and 40 CFR 58.58c(c), the Permittee shall submit the following information no later than 60 days following the initial performance test:
    - (1) The initial performance test data;
    - (2) The values for the site-specific operating parameters, as applicable [40 CFR 60.56c(d) or (i)]; and
    - (3) The waste management plan.
  - (b) Pursuant to 326 IAC 11-6-8, 40 CFR 60.38e and 40 CFR 58.58c(d), upon March 31, 2002, the Permittee must submit an semi-annual report including the following information:
    - (1) The values for the site-specific operating parameters, as applicable;

3. Condition B.8 Compliance with Permit Conditions has been revised to clarify that noncompliance with any requirement of this permit may result in an enforcement action against the Permittee, an action to modify, revoke, reissue or terminate the source's permit, and/or a denial of the Permittee's application to renew the permit. In addition, except for those permit conditions that are not federally enforceable, noncompliance is also a violation of the federal Clean Air Act.

B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provision of this permit ~~except those specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act and is grounds for:~~
- (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; or
  - (3) Denial of a permit renewal application.
- (b) **Noncompliance with any provisions of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act.**
- (c) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (d) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.



## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for a Part 70 Operating Permit**

#### **Source Background and Description**

**Source Name:** Lafayette Home Hospital  
**Source Location:** 2400 South Street, Lafayette, Indiana 47904-3027  
**County:** Tippecanoe  
**SIC Code:** 8062  
**Operation Permit No.:** T 157-11992-00052  
**Permit Reviewer:** Edward A. Longenberger

The Office of Air Quality (OAQ) has reviewed a Part 70 permit application from Lafayette Home Hospital relating to the operation of three (3) boilers and a medical waste incinerator at a general medical hospital.

#### **History**

The Hospital Medical Infectious Waste Incinerator, installed in 1990, has a design capacity of 223 pounds of medical waste per hour. The applicant has requested to establish a maximum charge rate for the incinerator of less than 200 pounds of medical waste per hour. Under the definitions set forth in 40 CFR 60.51c, the operation of the incinerator in this manner would define it as a small Hospital Medical Infectious Waste Incinerator. For the purposes of emissions guidelines for existing sources, a Hospital Medical Infectious Waste Incinerator may change its size designation by establishing a "maximum charge rate" lower than its design capacity, during the most recent performance test demonstrating compliance with all applicable emission limits. This rate will act as a limit, because it is not the true maximum for this unit. Hourly recording of the maximum charge rate is already required pursuant to 326 IAC 11-6-7 and 40 CFR 60.57c.

#### **Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, installed in 1990, firing natural gas as supplementary fuel, exhausting to Stack I-1, with a maximum charge rate less than 200 pounds of medical waste per hour, rated at 2.57 million British thermal units per hour. This facility is undergoing retrofitting to comply with 326 IAC 11-6 and 40 CFR 60, Subpart Ce, and will be equipped with a wet scrubber as control.

#### **Unpermitted Emission Units and Pollution Control Equipment**

The source also consists of the following unpermitted facilities/units:

- (b) Three (3) natural gas-fired boilers, firing No.2 distillate oil as backup, identified as B-1, B-2 and B-3, each installed in 1971, each exhausting to Stack B-1, rated at 20.9 million British thermal units per hour, each.

## **New Emission Units and Pollution Control Equipment Receiving Advanced Source Modification Approval**

There are no new facilities proposed at this source during this review process.

### **Insignificant Activities**

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month: Four (4) fuel storage tanks, identified as T-1, T-2, T-3 and T-4, all exhausting to vent, capacity: 10,000 gallons of No.2 distillate fuel, each. Total VOC emissions from fuel tanks: 0.267 tons per year.
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3]
- (c) Cleaners and solvents characterized as follows: having a vapor pressure equal to or less than 2 kiloPascals; 15 millimeters of mercury; or 0.3 pounds per square inch measured at 38EC (100EF) or; having a vapor pressure equal to or less than 0.7 kiloPascals; 5 millimeters of mercury; or 0.1 pounds per square inch measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (d) Closed loop heating and cooling systems.
- (e) Heat exchanger cleaning and repair.
- (f) Paved and unpaved roads and parking lots with public access.
- (g) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.
- (h) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (i) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (j) Emergency generators as follows: diesel -fired not exceeding 1,600 horsepower: Three (3) diesel -fired emergency generators, identified as G-1, G-2 and G-3, all exhausting to Stack G-1, rated at 1,100 horsepower, each.
- (k) Vents from ash transport systems not operated at positive pressure.
- (l) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (m) Activities or categories of activities with individual HAP emissions emitting greater than one (1) pound per day but less than 5 pounds per day or one (1) ton per year of a single HAP: One (1) ethylene oxide sterilizer, identified as E-1, ethylene oxide emissions 0.00147 pounds per hour or 0.0353 pounds per day.

### Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) Registration (no permit number), issued on October 1, 1990

All conditions from previous approvals were incorporated into this Part 70 permit.

### Enforcement Issue

- (a) IDEM is aware that equipment has been constructed and/or operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment*. Since the potential to emit of SO<sub>2</sub> from the three boilers when operating on No.2 fuel oil is greater than 25 tons per year, the construction of the three boilers would be Significant Source Modification level.
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

### Recommendation

The staff recommends to the Commissioner that the Part 70 permit be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 permit application for the purposes of this review was received on March 9, 2000.

### Emission Calculations

See pages 1 through 8 of 8 of Appendix A of this document for detailed emissions calculations.

### Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	6.78
PM <sub>10</sub>	6.78
SO <sub>2</sub>	29.6

<b>Pollutant</b>	<b>Potential To Emit (tons/year)</b>
VOC	2.24
CO	29.1
NO <sub>x</sub>	60.7

Note: For the purpose of determining Title V applicability for particulates, PM<sub>10</sub>, not PM, is the regulated pollutant in consideration.

<b>HAPs</b>	<b>Potential To Emit (tons/year)</b>
Hydrogen Chloride	16.4
Lead	0.036
Antimony	0.006
Arsenic	0.001
Barium	0.002
Beryllium	0.0008
Cadmium	0.003
Total Chlorinated Dibenz-P-dioxin	0.00001
Total Chlorinated Dibenzofuran	0.00003
Chlorine	0.051
Chromium	0.001
Hydrogen Flouride	0.073
Manganese	0.002
Mercury	0.053
Nickel	0.001
Total Polychlorinated Biphenyls	0.00002
<b>TOTAL</b>	<b>16.6</b>

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP (Hydrogen Chloride) is equal to or greater than ten (10) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) Pursuant to 326 IAC 11-6-3, Permits, facilities subject to 326 IAC 11-6 shall submit an application for a Part 70 permit, in accordance with 326 IAC 2-7-4, to the department no later than March 11, 2000. Therefore, although the potential to emit HAPs after the incinerator is retrofit with a scrubber is less than major source levels, a Part 70 Operating Permit is required for this source because it is subject to the requirements of 326 IAC 11-6, Hospital/ Medical/Infectious Waste Incinerators.

- (c) The potentials to emit in these tables represent the potentials to emit before compliance with 40 CFR 60, Subpart Ce.

### Actual Emissions

No previous emission data has been received from the source.

### Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 Operating Permit.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Medical Waste Incinerator	0.648	0.648	0.001	0.061	1.29	1.56	0.065/ 0.239
Three (3) boilers	3.90	2.09	27.9	1.51	23.1	39.2	0.494/ 0.530
Insignificant Activities	0.578	0.578	0.667	0.849	4.54	19.8	0.100
Total Emissions	5.15	3.40	28.6	2.48	29.9	61.7	0.869

These emissions represent the potential to emit after controls after the wet scrubber is installed and operational. These potentials to emit represent the potentials to emit after compliance with 40 CFR Part 60, Subpart Ce.

### County Attainment Status

The source is located in Tippecanoe County.

Pollutant	Status
PM <sub>10</sub>	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Tippecanoe County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD),

326 IAC 2-2 and 40 CFR 52.21.

- (b) Tippecanoe County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

#### **Part 70 Permit Conditions**

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

#### **Federal Rule Applicability**

- (a) This Part 70 does not involve a pollutant-specific emissions unit with the potential to emit after control in an amount equal to or greater than one hundred (100) tons per year. Therefore, the requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable.
- (b) The one (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.30e), Subpart Ce. The one (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, shall comply with the following emission limits:
  - (1) Particulate Matter emissions shall not exceed 0.05 grains per dry standard cubic foot for small Hospital/Medical/Infectious Waste Incinerators. The incinerator is classified as small pursuant to 40 CFR 60.51c because it has a maximum design waste burning capacity less than or equal to two hundred (200) pounds per hour.
  - (2) Carbon Monoxide emissions shall not exceed 40 parts per million by volume;
  - (3) Dioxins/furans shall not exceed 55 grains per billion dry standard cubic feet total dioxins/furans or 1.0 grains per billion dry standard cubic feet toxic equivalent quantity (TEQ);
  - (4) Hydrogen chloride emissions shall not exceed 100 parts per million by volume or a 93% reduction;
  - (5) Sulfur dioxide emissions shall not exceed 55 parts per million by volume;

- (6) Nitrogen oxide emissions shall not exceed 250 parts per million by volume;
- (7) Lead emissions shall not exceed 0.52 grains per thousand dry standard cubic feet or a 70% reduction;
- (8) Cadmium emissions shall not exceed 0.07 grains per thousand dry standard cubic feet or a 65% reduction;
- (9) Mercury emissions shall not exceed 0.24 grains per thousand dry standard cubic feet or a 85% reduction; and
- (10) Discharge into the atmosphere of any gases shall not exceed ten percent (10%) opacity (6-minute block average).

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the one (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, except when otherwise specified in 40 CFR 60 Subpart Ce.

- (c) The one (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.50c), Subpart Ec, because the incinerator was constructed prior to June 20, 1996.
- (d) The three (3) boilers, identified as B-1, B-2 and B-3, are not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.40b), Subpart Db, because each boiler has a heat input capacity less than one hundred (100) million British thermal units per hour.

The three (3) boilers, identified as B-1, B-2 and B-3, are not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.40c), Subpart Dc, because each boiler was constructed before June 9, 1989.

- (e) The four (4) fuel storage tanks, identified as T-1, T-2, T-3 and T-4 are not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110, 60.110a or 60.110b), Subpart K, Ka or Kb, because each tank has a capacity less than forty (40) cubic meters.
- (f) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.
- (g) The ethylene oxide sterilization operation is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), Part 63, Subpart O, because, pursuant to 40 CFR 63.360(e), this subpart does not apply to ethylene oxide sterilization operations at stationary sources such as hospitals, doctors offices, clinics, or other facilities whose primary purpose is to provide medical services to humans or animals.
- (h) There are no halogenated solvents used in the degreasing operations. Therefore, this source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), Part 63, Subpart T.

**State Rule Applicability - Entire Source**

326 IAC 2-4.1-1 (New Source Toxics Control)

The one (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, is not subject to the requirements of 326 IAC 2-4.1-1, New Source Toxics Control, because it was constructed prior to July 27, 1997.

326 IAC 2-6 (Emission Reporting)

This source is located in Tippecanoe County and the potential to emit NO<sub>x</sub> is less than one hundred (100) tons per year. The source is not one of the twenty-eight (28) listed sources and its potential to emit PM<sub>10</sub> is less than one hundred (100) tons per year, including fugitive emissions, therefore, 326 IAC 2-6 does not apply.

The source will be required to annually submit a statement of the actual emissions of all federally regulated pollutants from the source, for the purpose of fee assessment.

326 IAC 5-1 (Opacity Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**State Rule Applicability - Individual Facilities**

326 IAC 4-2-2 (Incinerators)

Pursuant to 326 IAC 4-2-2, the one (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, with a capacity less than 200 pounds of medical waste per hour shall:

- (a) Consist of primary and secondary chambers or the equivalent;
- (b) be equipped with a primary burner unless burning wood products;
- (c) comply with 326 IAC 5-1 and 326 IAC 2;
- (d) be maintained properly as specified by the manufacturer and approved by the commissioner;
- (e) be operated according to the manufacturer's recommendations and only burn waste approved by the commissioner;
- (f) comply with other state and/or local rules or ordinances regarding installation and operation of incinerators;



- (g) be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented;
- (h) not emit particulate matter in excess of five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air; and
- (i) not create a nuisance or a fire hazard.

If any of the above result, the burning shall be terminated immediately.

The incinerator has a maximum exhaust rate of 0.051 pounds of PM per 1,000 pounds of dry exhaust gas, corrected to fifty percent (50%) excess air. Therefore, the incinerator is in compliance with this rule.

326 IAC 6-2-3 (Particulate Emissions Limitations for Facilities Constructed prior to September 21, 1983)

The three (3) boilers, identified as B-1, B-2 and B-3, each constructed in 1971, with a total heat input capacity of 60.7 million British thermal units per hour, must comply with the PM emission limitation of 326 IAC 6-2-3. This limitation is based on the following equation given in 326 IAC 6-2-3:

$$Pt = C \times a \times h / 76.5 \times Q^{0.75} \times N^{0.25}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 MMBtu/hr heat input. The value 0.8 shall be used for Q greater than 1,000 MMBtu/hr heat input.

h = Stack height in feet.

For the three (3) boilers:

$$Pt = 50 \times 0.67 \times 50.0 / 76.5 \times (60.7)^{0.75} \times 1^{0.25} = 1.01 \text{ lb/MMBtu}$$

Pursuant to 326 IAC 6-2-3(d), Pt for all facilities used for indirect heating purposes which were existing and in operation on or before June 8, 1972 shall not exceed 0.8 pounds per million British

thermal units. Therefore, the three (3) boilers are limited to emissions of 0.8 pounds per million British thermal units.

Based on Appendix A, the total potential to emit of PM from the three (3) boilers is 3.92 tons per year.

$$3.92 \text{ tons/yr} \times (2000 \text{ lbs/ton} / 8760 \text{ hrs/yr}) = 0.895 \text{ lbs/hr}$$
$$(0.895 \text{ lbs/hr} / 60.7 \text{ MMBtu/hr}) = 0.015 \text{ lbs PM per MMBtu}$$

Therefore, the three (3) boilers, identified as B-1, B-2 and B-3, will comply with this rule.

#### 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The requirements of 326 IAC 7-1.1 are not applicable to the three (3) boilers, identified as B-1, B-2 and B-3, because the potential to emit SO<sub>2</sub> from each boiler is less than ten (10) pounds per hour and twenty-five (25) tons per year. This is true because the sulfur content of the No. 2 distillate fuel used is one-tenth percent (0.1%). Any change in the sulfur content of the fuels used that causes an increase in SO<sub>2</sub> emissions at any of the three (3) boilers to 25 tons per year or more shall cause the facility to become subject to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations). Any increase in the sulfur content of the No. 2 distillate fuel used to more than 0.268 percent will cause the boiler to have a potential to emit of 25 tons per year and will require prior IDEM, OAQ, approval.

#### 326 IAC 9-1-2 (Carbon Monoxide Emissions)

No person shall cause or allow the discharge of carbon monoxide from refuse incineration or burning equipment, unless the waste gas stream is burned in a direct-flame afterburner or is controlled by other means approved by the commissioner.

#### 326 IAC 11-6 (Hospital/Medical/Infectious Waste Incinerators)

- (a) The one (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, is subject to 326 IAC 11-6 and 40 CFR 60, Subpart Ce, with a compliance date of one year after the effective date of the rule, unless the facility is undergoing retrofit to come into compliance where compliance is required no later than March 31, 2002. Since this facility is undergoing retrofit to come into compliance, the compliance date is March 31, 2002.
- (b) Pursuant to 326 IAC 11-6-9, the source shall install the necessary air pollution control equipment and be in compliance with all provisions of this rule no later than March 31, 2002, provided the following measurable and enforceable incremental steps of progress are taken:
  - (1) Submit a final control plan no later than June 30, 1999 (This source submitted a final control plan on June 21, 1999, and revised the plan on January 5, 2000);
  - (2) Award contracts for emissions control systems or for process modifications, or issuance of orders for the purchase of component parts to accomplish emission control or process modifications no later than March 31, 2000;
  - (3) Initiate on-site construction or installation of emission control equipment or process change no later than March 31, 2001;
  - (4) Complete on-site construction or installation of emission control equipment or process change no later than September 30, 2001;

- (5) Be in final compliance no later than March 31, 2002; and
  - (6) The source shall be in compliance with the operator training and qualification requirements by March 11, 2000.
- (c) Pursuant to 326 IAC 11-6-4 and 40 CFR 60, Subpart Ce, the one (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, shall comply with the following emission limits:
- (1) Particulate Matter emissions shall not exceed 0.05 grains per dry standard cubic foot for small Hospital/Medical/Infectious Waste Incinerators. The incinerator is classified as small pursuant to 40 CFR 60.51c because it has a maximum design waste burning capacity less than or equal to two hundred (200) pounds per hour.
  - (2) Carbon Monoxide emissions shall not exceed 40 parts per million by volume;
  - (3) Dioxins/furans shall not exceed 55 grains per billion dry standard cubic feet total dioxins/furans or 1.0 grains per billion dry standard cubic feet toxic equivalent quantity (TEQ);
  - (4) Hydrogen chloride emissions shall not exceed 100 parts per million by volume or a 93% reduction;
  - (5) Sulfur dioxide emissions shall not exceed 55 parts per million by volume;
  - (6) Nitrogen oxide emissions shall not exceed 250 parts per million by volume;
  - (7) Lead emissions shall not exceed 0.52 grains per thousand dry standard cubic feet or a 70% reduction;
  - (8) Cadmium emissions shall not exceed 0.07 grains per thousand dry standard cubic feet or a 65% reduction;
  - (9) Mercury emissions shall not exceed 0.24 grains per thousand dry standard cubic feet or a 85% reduction.
  - (10) Discharge into the atmosphere of any gases shall not exceed ten percent (10%) opacity.
- (d) Pursuant to 326 IAC 11-6-5 and 40 CFR 60, Subpart Ce, the medical waste incinerator shall not operate at any time unless a fully trained and qualified Hospital/Medical/Infectious Waste Incinerator (HMIWI) operator is accessible either at the facility or available within one (1) hour. The following documentation shall be maintained at the facility and an initial review of the information with each HMIWI operator shall be conducted within six (6) months after March 16, 1998, or prior to assumption of responsibilities affecting HMIWI operation, whichever is later, and annually, thereafter:
- (1) Summary of the applicable standards;
  - (2) Description of basic combustion theory applicable to an HMIWI;
  - (3) Procedures for receiving, handling, and charging waste;

- (4) HMIWI startup, shutdown and malfunction procedures;
  - (5) Procedures for maintaining proper combustion air supply levels;
  - (6) Procedures for operating the HMIWI and associated air pollution control systems;
  - (7) Procedures for responding to periodic malfunction or conditions that may lead to malfunction;
  - (8) Procedures for monitoring HMIWI emissions;
  - (9) Reporting and record keeping; and
  - (10) Procedures for handling ash.
- (e) Pursuant to 326 IAC 11-6-6, the Permittee shall prepare and submit a waste management plan as specified in 40 CFR 60.55c no later than sixty (60) days following the initial performance test.
- (1) The Waste Management Plan must identify both the feasibility and the approach to separate certain components of solid waste from the health care waste stream in order to reduce the amount of toxic emissions from incinerated waste.
  - (2) The Waste Management Plan may include, but is not limited to:
    - (A) materials such as paper, cardboard, plastics, glass, batteries, or metal recycling; or
    - (B) purchasing recycled or recycled products.
  - (3) The Waste Management Plan may include different goals or approaches for different areas or departments of the facility and need not include new waste management goals for every waste stream.
  - (4) The Waste Management Plan should identify, where possible:
    - (A) reasonably available additional waste management measures;
    - (B) taking into account the effectiveness of waste management measures already in place;
    - (C) the cost of additional measures;
    - (D) the emission reductions expected to be achieved; and
    - (E) any other environmental or energy impacts they might have.
  - (5) The American Hospital Association publication entitled "An Ounce of Prevention: Waste Reduction Strategies" shall be considered in the development of the Waste Management Plan.
  - (6) Additional requirements:

- (A) The Waste Management Plan shall address proper waste segregation.
- (B) The Waste Management Plan shall address the management of such waste stream to assure that the Permittee is in compliance with local, state, and federal waste management rules.
- (C) The Waste Management Plan shall address proper management of all mercury-containing items.
- (D) The Waste Management Plan shall identify all items that could become mercury-containing wastes.
- (E) The Permittee shall monitor its waste stream for mercury-containing waste, and shall maintain a list of common mercury-containing items. Common mercury-containing items include, but are not limited to:
  - (i) Thermometers (silver colored liquid inside)
  - (ii) Thermostats (nonelectronic)
  - (iii) Fluorescent and other mercury vapor lighting (high intensity discharge - HID, metal halide, high pressure sodium and neon bulbs)
  - (iv) Gauges (barometers, manometers, blood pressure and vacuum gauges with silver colored liquid)
  - (v) Batteries (mercuric oxide and some alkaline batteries)
  - (vi) Paint (latex manufactures before 1990, and some oil-based paints; check the label)
  - (vii) Thimerosal or merbromine (in some antibacterial products)
  - (viii) Elemental mercury (from labs)
  - (ix) Esophageal dilators
  - (x) Laboratory fixatives
- (F) The Permittee shall include plans to eliminate all mercury-containing items from the waste stream of the incinerator.
- (G) The Waste Management Plan shall address the training of all affected staff on proper waste management practices of mercury-containing items and other solid, hazardous and medical waste items.
- (H) The Permittee shall have Waste Management Plans for all facilities owned by the Permittee that send waste to this incinerator. Each Waste Management Plan shall comply with the requirements of this condition.

### **State Rule Applicability - Insignificant Activities**

#### **326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)**

The three (3) emergency generators, identified as G-1, G-2 and G-3, firing No.2 distillate oil, are not subject to the emissions limitations prescribed by 326 IAC 7-1.1-1 (Sulfur Dioxide Emissions Limitations), because each generator has a potential to emit of SO<sub>2</sub> less than twenty-five (25) tons per year or ten (10) pounds per hour.

#### **326 IAC 8-3 (Degreasing Operations)**

- (a) Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations) for cold cleaning operations constructed after January 1, 1980, the owner or operator shall:
  - (1) Equip the cleaner with a cover;
  - (2) Equip the cleaner with a facility for draining cleaned parts;
  - (3) Close the degreaser cover whenever parts are not being handled in the cleaner;
  - (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
  - (5) Provide a permanent, conspicuous label summarizing the operation requirements;
  - (6) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.
- (b) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility construction of which commenced after July 1, 1990, shall ensure that the following control equipment requirements are met:
  - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));
    - (B) The solvent is agitated; or
    - (C) The solvent is heated.
  - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
  - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (B) A water cover when the solvent used is insoluble in, and heavier than, water.
  - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (c) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:
  - (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

### Testing Requirements

- (a) Pursuant to 326 IAC 11-6-7 and 40 CFR 60, Subpart Ce, an initial performance test to demonstrate compliance with Condition D.1.4 of the proposed permit must be conducted no later than March 31, 2002. Compliance shall be determined according to 326 IAC 3-6 concerning source sampling procedures and 40 CFR 60, Subpart Ec, Section 60.56c, excluding the fugitive emissions testing requirements under Section 60.56c(b)(12) and 60.56c(3).
- (b) Pursuant to 40 CFR 60.56c(c)(1) and (2), annual performance testing to demonstrate compliance with the PM, CO, HCl and opacity emission limits established in Condition D.1.4 of the proposed permit shall be performed each year following the initial performance test.
- (c) No testing is required for the three (3) boilers, identified as identified as B-1, B-2 and B-3, because there are no control devices and emissions were based on AP-42 emission factors.

- (d) The use of a Jerome Meter to detect mercury-containing waste will not be required by this permit because the hospital is burning its own waste, and this source will address and monitor mercury-containing wastes as part of the Waste Management Plan required by 326 IAC 11-6.

### Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

- (a) The one (1) Hospital Medical Infectious Waste Incinerator, identified as I-1, has applicable compliance monitoring conditions as specified below:
  - (1) Visible emission notations of the incinerator/scrubber stack(s) exhaust shall be performed once per shift during normal daylight operations until the final compliance date of March 31, 2002, or upon complying with the monitoring requirements of 326 IAC 11-6 and 40 CFR 60 Subpart Ce, whichever is earlier, when exhausting to the atmosphere. After March 31, 2002, the monitoring requirements of 326 IAC 11-6 and 40 CFR 60 Subpart Ce will make these visible emissions notations unnecessary. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.
  - (2) Pursuant to 326 IAC 11-6-7 and 40 CFR 60.57c, the Permittee shall install, calibrate (to manufacturers specifications), maintain, and operate devices (or establish methods) for monitoring the applicable operating parameters at all times except during periods of startup or shutdown. The following operational parameters for the one (1) medical waste incinerator equipped with a wet scrubber shall be measured continuously, and recorded at the specified time intervals:



- (A) Maximum charge rate, recorded once per hour;
  - (B) Maximum flue gas temperature, recorded once per minute;
  - (C) Minimum secondary chamber temperature, recorded once per minute;
  - (D) Minimum pressure drop across the wet scrubber or minimum horsepower or amperage to the wet scrubber, recorded once per minute;
  - (E) Minimum scrubber liquor flow rate, recorded once per minute; and
  - (F) Minimum scrubber liquor pH, recorded once per minute.
- (3) The Permittee shall install, calibrate (to manufacturers specifications), maintain, and operate devices (or establish methods) for measuring the use of the bypass stack including date, time, and duration.
- (4) The Permittee shall obtain monitoring data at all times during Hospital/Medical/ Infectious Waste Incinerator operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for 75 percent of the operating hours per day and for 90 percent of the operating days per calendar quarter that the affected facility is combusting hospital waste and/or medical/infectious waste.
- (5) The Permittee shall monitor mercury-containing items in the waste stream as required by the Waste Management Plan.

These monitoring conditions are necessary because the wet scrubber and the one (1) Hospital Medical Infectious Waste Incinerator must operate properly to ensure compliance with 326 IAC 11-6-4 and 40 CFR 60, Subpart Ce.

- (b) The three (3) boilers, identified as B-1, B-2 and B-3, have applicable compliance monitoring conditions as specified below:

Visible emission notations of the boiler stack (B-1) exhaust shall be performed once per shift during normal daylight operations when any of the three (3) boilers are combusting No. 2 distillate oil and exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

These monitoring conditions are necessary because the three (3) boilers must be operating properly to ensure compliance with 326 IAC 6-2-3 and 326 IAC 2-7.

## **Conclusion**

The operation of the three (3) boilers and a medical waste incinerator at a general medical hospital shall be subject to the conditions of the attached proposed **Part 70 Permit No. T 157-11992-00052**.

**Appendix A: Emission Calculations**  
**Controlled Air Medical Waste Incinerator**

**Company Name:** Lafayette Home Hospital  
**Address City IN Zip:** 2400 South Street, Lafayette, Indiana 47904-3027  
**Part 70:** 157-11992  
**Plt ID:** 157-00052  
**Reviewer:** Edward A. Longenberger  
**Date:** March 9, 2000

**THROUGHPUT**  
lbs/hr  
223

**THROUGHPUT**  
tons/yr  
976.74

**Uncontrolled**

Emission Factor in lb/ton	POLLUTANT								
	PM 4.670	SO2 2.170	CO 2.950	VOC 0.299	NOX 3.560	Lead** 0.073	HCl** 33.500	Aluminum 0.011	Antimony** 0.013
Potential Emissions in ton/yr	2.281	1.060	1.441	0.146	1.739	0.036	16.360	5.13E-03	6.25E-03

Emission Factor in lb/ton	POLLUTANT								
	Arsenic** 2.42E-04	Barium** 3.24E-03	Beryllium** 6.25E-06	Cadmium** 5.48E-03	Total CDD** 2.13E-05	Total CDF** 7.15E-05	Chlorine** 0.105	Chromium** 7.75E-04	Copper 0.013
Potential Emissions in ton/yr	1.18E-04	1.58E-03	3.05E-06	2.68E-03	1.04E-05	3.49E-05	5.13E-02	3.78E-04	6.10E-03

Emission Factor in lb/ton	POLLUTANT								
	HBr 0.043	HF** 0.149	Iron 0.014	Manganese** 5.67E-04	Mercury** 0.107	Nickel** 5.90E-04	Total PCB** 4.65E-05	Silver 2.26E-04	Thallium 1.10E-03
Potential Emissions in ton/yr	0.021	0.073	7.03E-03	2.77E-04	0.052	2.88E-04	2.27E-05	1.10E-04	5.37E-04

\*\* Hazardous Air Pollutants listed in Clean Air Act

**HCl** Hydrogen Chloride  
**CDD** Chlorinated Dibenzo-P-Dioxin  
**CDF** Chlorinated Dibenzofuran  
**HBr** Hydrogen Bromide  
**HF** Hydrogen Fluoride  
**PCB** Polychlorinated Biphenyls

**Methodology**

Emission factors are from AP 42 (5th Edition 1/95) Tables 2.3-1 through 2.3-13, Emission Factors for Controlled Air Medical Waste Incinerators.  
Throughput (lb/hr) \* 8760 hr/yr \* ton/2000 lb = throughput (ton/yr)

**Appendix A: Emission Calculations**  
**Controlled Air Medical Waste Incinerator**

**Company Name:** Lafayette Home Hospital  
**Address City IN Zip:** 2400 South Street, Lafayette, Indiana 47904-3027  
**Part 70:** 157-11992  
**Plt ID:** 157-00052  
**Reviewer:** Edward A. Longenberger  
**Date:** March 9, 2000

**THROUGHPUT**  
lbs/hr  
200

**THROUGHPUT**  
tons/yr  
876

**Controlled with Wet Scrubber**

Emission Factor in lb/ton	POLLUTANT								
	PM 1.480	SO2 0.003	CO 2.950	VOC 0.140	NOX 3.560	Lead** 0.070	HCl** 0.139	Aluminum 0.011	Antimony** 0.0004
Potential Emissions in ton/yr	0.648	0.001	1.292	0.061	1.559	0.031	0.061	4.60E-03	1.79E-04

Emission Factor in lb/ton	POLLUTANT								
	Arsenic** 3.27E-05	Barium** 3.24E-03	Beryllium** 6.25E-06	Cadmium** 7.43E-03	Total CDD** 1.84E-06	Total CDF** 4.92E-06	Chlorine** 0.105	Chromium** 1.03E-03	Copper 0.013
Potential Emissions in ton/yr	1.43E-05	1.42E-03	2.74E-06	3.25E-03	8.06E-07	2.15E-06	4.60E-02	4.51E-04	5.48E-03

Emission Factor in lb/ton	POLLUTANT								
	HBr 0.043	HF** 0.149	Iron 0.014	Manganese** 6.12E-04	Mercury** 0.017	Nickel** 2.54E-03	Total PCB** 4.65E-05	Silver 4.33E-04	Thallium 1.10E-03
Potential Emissions in ton/yr	0.019	0.065	6.31E-03	2.68E-04	0.008	1.11E-03	2.04E-05	1.90E-04	4.82E-04

\*\* Hazardous Air Pollutants listed in Clean Air Act

**HCl** Hydrogen Chloride  
**CDD** Chlorinated Dibenzo-P-Dioxin  
**CDF** Chlorinated Dibenzofuran  
**HBr** Hydrogen Bromide  
**HF** Hydrogen Fluoride  
**PCB** Polychlorinated Biphenyls

**Methodology**

Emission factors are from AP 42 (5th Edition 1/95) Tables 2.3-1 through 2.3-13, Emission Factors for Controlled Air Medical Waste Incinerators.  
Throughput (lb/hr) \* 8760 hr/yr \* ton/2000 lb = throughput (ton/yr)

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Three (3) Boilers on Natural Gas**

**Company Name:** Lafayette Home Hospital  
**Address City IN Zip:** 2400 South Street, Lafayette, Indiana 47904-3027  
**Part 70:** 157-11992  
**Plt ID:** 157-00052  
**Reviewer:** Edward A. Longenberger  
**Date:** March 9, 2000

Unit ID	Capacity
B-1	20.90
B-2	20.90
B-3	20.90
<b>Total</b>	<b>62.7</b>

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

62.70

549.25

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.522	2.087	0.165	27.46	1.510	23.07

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 4 for HAPs emissions calculations.

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****HAPs Emissions**

**Company Name:** Lafayette Home Hospital  
**Address City IN Zip:** 2400 South Street, Lafayette, Indiana 47904-3027  
**Part 70:** 157-11992  
**Plt ID:** 157-00052  
**Reviewer:** Edward A. Longenberger  
**Date:** March 9, 2000

**HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	5.767E-04	3.296E-04	2.060E-02	4.943E-01	9.337E-04

**HAPs - Metals**

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	1.373E-04	3.021E-04	3.845E-04	1.044E-04	5.767E-04

Methodology is the same as page 3.

The five highest organic and metal HAPs emission factors are provided above.  
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations**  
**Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)**  
**#1 and #2 Fuel Oil**  
**Three (3) Boilers on No.2 Distillate Fuel**

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**Company Name:** Lafayette Home Hospital  
**Address City IN Zip:** 2400 South Street, Lafayette, Indiana 47904-3027  
**Part 70:** 157-11992  
**Plt ID:** 157-00052  
**Reviewer:** Edward A. Longenberger  
**Date:** March 9, 2000

Heat Input Capacity  
MMBtu/hr

62.7

Potential Throughput  
kgals/year

3923.22857

S = Weight % Sulfur  
0.1

Unit ID	Capacity
B-1	20.90
B-2	20.90
B-3	20.90
<b>Total</b>	<b>62.7</b>

Emission Factor in lb/kgal	Pollutant				
	PM*	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
	2.0	14.2 (142.0S)	20.0	0.34	5.0
Potential Emission in tons/yr	3.92	27.9	39.2	0.667	9.81

**Methodology**

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)

\*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM<sub>10</sub> when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 6 for HAPs emission calculations.

**Appendix A: Emissions Calculations**  
**Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)**  
**#1 and #2 Fuel Oil**  
**HAPs Emissions**  
**Three (3) Boilers on No.2 Distillate Fuel**

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**Company Name: Lafayette Home Hospital**  
**Address City IN Zip: 2400 South Street, Lafayette, Indiana 47904-3027**  
**Part 70: 157-11992**  
**Plt ID: 157-00052**  
**Reviewer: Edward A. Longenberger**  
**Date: March 9, 2000**

HAPs - Metals

Emission Factor in lb/mmBtu	Arsenic 4.0E-06	Beryllium 3.0E-06	Cadmium 3.0E-06	Chromium 3.0E-06	Lead 9.0E-06
Potential Emission in tons/yr	1.10E-03	8.24E-04	8.24E-04	8.24E-04	2.47E-03

HAPs - Metals (continued)

Emission Factor in lb/mmBtu	Mercury 3.0E-06	Manganese 6.0E-06	Nickel 3.0E-06	Selenium 1.5E-05
Potential Emission in tons/yr	8.24E-04	1.65E-03	8.24E-04	4.12E-03

Methodology

No data was available in AP-42 for organic HAPs.

Potential Emissions (tons/year) = Throughput (mmBtu/hr)\*Emission Factor (lb/mmBtu)\*8,760 hrs/yr / 2,000 lb/ton



**Appendix A: Emission Calculations**  
**Internal Combustion Engines - Diesel Fuel**  
**Turbine (>600 HP)**  
**Three (3) Emergency Generators**

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**Company Name:** Lafayette Home Hospital  
**Address City IN Zip:** 2400 South Street, Lafayette, Indiana 47904-3027  
**Part 70:** 157-11992  
**Plt ID:** 157-00052  
**Reviewer:** Edward A. Longenberger  
**Date:** March 9, 2000

**A. Emissions calculated based on heat input capacity (MMBtu/hr)**

Heat Input Capacity  
MM Btu/hr

S= 0.1 = WEIGHT % SULFUR

0.0

Emission Factor in lb/MMBtu	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	0.1	0.0573	0.1 (1.01S)	3.2 **see below	0.1	0.85
Potential Emission in tons/yr	0.0	0.0	0.0	0.0	0.0	0.0

\*\*NOx emissions: uncontrolled = 3.2 lb/MMBtu, controlled with ignition timing retard = 1.9 lb/MMBtu

**B. Emissions calculated based on output rating (hp)**

**Emergency Generators**

Mechanical Output  
Horsepower (hp)

Potential Throughput\*  
hp-hr/yr

S= 0.1 = WEIGHT % SULFUR

3300.0

1650000.0

Emission Factor in lb/hp-hr	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	0.0007	not provided	0.0008 (.00809S)	0.024 **see below	0.00071	0.00550
Potential Emission in tons/yr	0.578	0.000	0.667	19.8	0.582	4.54

\*\*NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

Note that the PM10 emission factor in lb/hp-hr is not provided in the Supplement B update of AP-42.

An average conversion factor of 1hp-hr = 7,000Btu is provided below.

**Methodology**

\*Potential Throughput (hp-hr/yr) = hp \* 500 hr/yr for emergency generators

Emission Factors are from AP 42 (Supplement B 10/96) Table 3.4-1 and Table 3.4-2

1 hp-hr = 7000 Btu, AP42 (Supplement B 10/96), Table 3.3-1, Footnote a.

Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] \* 500 hr/yr / (2,000 lb/ton )

Emission (tons/yr) = [Potential Throughput (hp-hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton )

\*No information was given regarding which method was used to determine the PM emission factor or whether condensable PM is included. The PM10 emission factor is filterable and condensable PM10 combined.

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

**Appendix A: Emission Calculations**  
**Medical Waste Incinerator Compliance with 326 IAC 4-2-2**

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**Company Name:** Lafayette Home Hospital  
**Address City IN Zip:** 2400 South Street, Lafayette, Indiana 47904-3027  
**Part 70:** 157-11992  
**Plt ID:** 157-00052  
**Reviewer:** Edward A. Longenberger  
**Date:** March 9, 2000

Potential PM emissions	0.467	lb/hr
Stack gas flow rate	4916	acfm
Gas temperature	1410	deg F
Incinerator Throughput	200	lb/hr

**Q,std = Volumetric flow rate at Standard Temperature**

$$Q_{std} = 4916 \text{ acfm} \times \frac{529}{1869} \text{ deg R} = 1391.42 \text{ dscfm}$$

**Cs = PM concentration**

$$Cs = \frac{0.467 \text{ lb/hr}}{1391.42 \text{ dscfm}} \times \frac{7000}{60} \frac{\text{gr/lb}}{\text{min/hr}} = 0.039 \text{ gr/dscf}$$

**Corrected to 50% excess air**

$$Cs, \text{ corrected} = 0.039 \text{ gr/dscf} \times \frac{(100+0)\%}{150\%} = 0.026 \text{ gr/dscf}$$

**Ideal Gas Law**

Specific Volume =  $\frac{R \times T}{P \times Mw}$  where

R = gas constant =  $\frac{21.9 \text{ (in Hg)(ft}^3\text{)}}{(\text{lb mol})(\text{deg R})}$

T = standard temp = 529 deg R

P = standard pressure = 29.45 in Hg

Mw = avg molecular weight of air = 29 lb/lbmol

$$\text{Specific Volume} = 13.565 \text{ cf / lb air}$$

**Therefore**

$$Cs, \text{ corrected} = 0.026 \text{ gr/dscf} \times 13.565 \text{ cf / lb air} = 0.354 \text{ gr/lb air}$$

$$0.354 \text{ gr/lb air} \times \frac{1}{7000} \frac{\text{lb PM}}{\text{gr}} = 0.00005 \frac{\text{lb PM}}{\text{lb dry gas}} = 0.051 \frac{\text{lb PM}}{1000 \text{ lb dry gas}}$$

$$\text{Maximum allowable particulate emission pursuant to 326 IAC 4-2-2: } 0.3 \frac{\text{lb PM}}{1000 \text{ lb dry gas}}$$

**Since the potential to emit of PM after controls from the incinerator is 0.051 pounds of PM per 1000 pounds of dry gas, the incinerator is in compliance with 326 IAC 4-2-2.**